

Appl. No. 10/030,065
Amdt. dated January 16, 2004
Reply to Office Action of August 18, 2003

Remarks

Amendments have been made to the specification. Specifically, the first paragraph on page 1 has been rewritten to remove the reference to specific claim numbers. The first paragraph on page 2 has been rewritten to remove the reference to specific claim numbers. The abstract has been rewritten to remove the term "(Figure 4)." No new matter is added by this amendment.

Claims 15-22, 24-31, and 33-37 have been rejected under 35 U.S.C. §103 as being unpatentable over Kanai (4,677,817) in view of Panasluk et al (5,228,929). These rejections are respectfully traversed in light of the following argument.

Applicant notes with appreciation the indication that claims 23 and 32 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. We respectfully traverse this requirement, as we believe independent claims 15 and 24 contain allowable subject matter in their original form.

The present invention relates to a method of producing a ring traveler for ring spinning or ring twisting machines. Ring travelers for ring spinning and ring twisting machines travel at a high speed. Therefore, the contact surface between ring traveler and ring as well as the contact surface between the ring traveler and the thread are subjected to a high degree of wear. Thus, the surface of the ring traveler is of great importance. To increase production and to reduce cost the surface of a ring traveler has to fulfill different requirements such as hardness, heat and corrosion resistance as well as smoothness to assure good sliding properties. That means that a smooth, continuous surface is required.

These requirements are fulfilled by a ring traveler which is characterized in that at least a portion of the core is subjected to a nitriding treatment during which heat energy and a nitriding active agent as active medium are supplied to the core. The ring traveler according to the present invention has a nitriding superficial layer, which is different from a ceramic layer.

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In contrast, Kanai discloses a method for producing a traveler for spinning or ring twisting machines, wherein a ceramic layer has been deposited on the core with means of chemical vapor deposition (CVD) or physical vapor deposition (PVD). The ring travelers according to Kanai have a hard ceramic layer which is fundamentally different from a nitrided surface layer according to the present invention.

In Panasiuk et al a general process for manufacturing a corrosion resistant iron-alloy is disclosed. The superficial layer is porous (see e.g. abstract, line 12), and therefore not a continuous surface. Such a surface is not suitable for ring travelers, as mentioned above. Therefore, there is no motivation for the person skilled to combine the disclosure of Panasiuk et al. with the disclosure of Kanai.

Therefore, none of the above documents, either taken alone or in combination with each other, teaches a process according to the present invention.

The examiner has taken official notice without documentary evidence to support the examiner's conclusion that "polishing the traveler before or after the nitriding treatment, while polishing after production is taught, both would be well-known." This rejection is respectfully traversed. Official notice unsupported by documentary evidence should only be taken by the examiner where the facts asserted to be well-known, or to be common knowledge in the art are capable of instant and unquestionable demonstration as being well-known. *In re Ahlert*, 424 F.2d 1088, 1091, 165 USPQ 418, 420 (CCPA 1970). General conclusions concerning what is "basic knowledge" or "common sense" to one of ordinary skill in the art without specific factual findings and some concrete evidence in the record to support these findings will not support an obviousness rejection. *In re Zurko*, 258 F.3d 1379, 1386, 59 USPQ2d 1693, 1697 (Fed. Cir. 2001).

It is respectfully submitted that the examiner has made a general conclusion concerning what is "basic knowledge" or "common sense." While it is true that travelers must be smooth due to constant surface-to-surface contact, it would not be obvious to one of ordinary skill in the art to polish the traveler before treatment. However, it would be

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obvious to polish the traveler after treatment, as disclosed in Kanai. Polishing the traveler before treatment does not guarantee a smooth surface after treatment since the treatment itself adds a layer of specific thickness to the traveler. This layer may be smooth or may need polishing. Polishing the traveler after treatment, however, would cause the traveler to be smooth due to the fact that the polishing would take place on the nitriding layer and not on the core below the nitriding layer. This is the method taught in Kanai, hence, this is the method that would have been obvious, not the claimed method.

The act of polishing the core before the nitriding treatment is a distinct and unobvious departure from the existing practice of polishing only after treatment. By polishing the core before treatment, the surfaces of the ring traveler can be made as smooth as possible after the nitriding treatment. By combining the steps of polishing the traveler before and after treatment the ring traveler is further refined, producing a very smooth traveler.

Therefore, it would not have been well-known in the art to polish the traveler before the nitriding treatment step.

In view of the above, it is submitted that the claims are in condition for allowance. Reconsideration of the rejections is requested. Allowance of claims 15-37 at an early date is solicited.

Respectfully submitted,



W. Thad Adams, III
Attorney for Applicant
Registration No. 29,037

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W. Thad Adams, III
ADAMS EVANS P.A.
2180 Two Wachovia Center
Charlotte, North Carolina 28282
Tel. 704-375-9249
Fax: 704-375-0729
e-mail: wla@adamspat.com
File No. 1644/7

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Karen Walker